IN THE UNITED STATES PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. 73674-4 (RAB:DMW:rld)

In re Patent Application of Saaed Gazor

Serial No.

10/736,697

Filed: December 17, 2003

Group Art Unit: 3632

Examiner:

For:

METHODS AND SYSTEMS TRACKING OF AMPLITUDES, PHASES AND

FREQUENCIES OF A MULTI-COMPONENT SINUSOIDAL SIGNAL

INFORMATION DISCLOSURE STATEMENT

This Information Disclosure Statement is being filed in the manner prescribed by 37 CFR 1.97(b)

- (d) to satisfy the duty under 37 CFR 1.56 to disclose to the Office information, known to

individuals associated with the filing and prosecution of the subject application, which is

material to the examination of the application.

In accordance with 37 CFR 1.97(g) and (h), this statement is not to be construed as a

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This Information Disclosure Statement is being filed within three months of the filing date of a

national application; within three months of the date of entry of the national stage as set forth in

37 CFR 1.491 in an international application; or before the mailing date of a first official action

on the merits and therefore applicant respectfully requests consideration under 37 CFR 1.97(b).

I hereby certify that no item of information in the Information Disclosure Statement filed

herewith was cited in a communication from a foreign patent office in a counterpart foreign

application or, to my knowledge after making reasonable inquiry, was known to any individual

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In compliance with 37 CFR 1.98(a)(2), also enclosed is a legible copy of:

- i) foreign patent;
- ii) each publication or that portion which caused it to be listed; and
- iii) all other information or that portion which caused it to be listed, excluding any copies of a United States patent application.

In compliance with 37 CFR 1.98(a)(1), a list of all patents, publications, applications or other information submitted for consideration by the Office is hereby provided by way of the attached Form PTO-1449.

It is respectfully requested that the information be expressly considered by the Examiner and that the references be made of record and appear among the "References Cited" on any patent to issue therefrom.

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The Patent Office is hereby authorized to charge any deficiency, or credit any overpayment in fees to Deposit Account Number 19-2550.

Respectfully submitted,

SAAED GAZOR

Dated: October 22, 2004

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Encls.:

Form PTO-1449

All references listed on Form PTO-1449

Acknowledgement Card

FORM PTO-1449 TRADEMENT U.S. DEPARTMENT OF COMMERCE (REV. 7-80) PATENT AND TRADEMARK OFFICE

LIST OF PUBLICATIONS CITED BY APPLICANT

(Use several sheets if necessary)

Sheet 1 of 2

ATTY. DOCKET NO. 73674-4

SERIAL NO. 10/736.697

APPLICANT Gazor, Saeed

FILING DATE

GROUP

3632 December 17, 2003 U.S. PATENT DOCUMENTS FILING DATE *FXAMINER DOCUMENT SUBCLASS IF APPROPRIATE NUMBER DATE NAME CLASS INITIAL FOREIGN PATENT DOCUMENTS DOCUMENT *EXAMINER INITIAL NUMBER DATE COUNTRY CLASS SUBCLASS YES NO OTHER PUBLICATIONS (Including Author, Title, Date, Pertinent Pages, Etc.) ÄNGEBY, J. "Estimating Signal Parameters Using the Nonlinear Instantaneous Least Squares Approach". IEEE Transactions on Signal Processing. 48(10): 2721-2732. (Oct. 2000). BARKAT, B. "Instantaneous Frequency Estimation of Nonlinear Frequency-Modulated Signals in the Presence 2 of Multiplicative and Additive Noise". IEEE Transactions on Signal Processing. 49(10): 2214-2222 (Oct. 2001). BENIDIR, M., et al. "Polynomial Phase Signal Analysis Based on the Polynomial Derivatives Decompositions". 3 IEEE Transactions on Signal Processing. 47(7): 1954-1965. (Jul. 1999). COSTAS, J. P. "Residual Signal Analysis - A Search and Destroy Approach to Spectral Analysis". Proc. of First ASSP Workshop on Spectral Estimation. 6.5.1-6.5.8 (Aug.1981). FAR, R. R., et al. "AM-FM Decomposition of Speech Signal Using MWL Criterion". Proceedings of Canadian 5 Conference of Electrical and Computer Engineering. (May 2004). FAR, R. R., et al. "Amplitude-Phase-Locked-Loop Design Using MWL Criterion Student Competition Paper". 6 Proceedings of IEEE Canadian Conference on Electrical and Computer Engineering. (2004). GAZOR, S. "Adaptive Maximum Windowed Likelihood Multi-Component AM-FM Signal Decomposition". IEEE Transactions on Speech and Audio Processing, T-SA-00314-2003. (Jul. 2004). GOLDEN, S., et al. "Maximum Likelihood Estimation, Analysis and Applications of Exponential Polynomial 8 Signals". IEEE Transactions on Signal Processing. 47(6): 1493-1501. (Jun. 1999). KAY, S., et al. "Mean Likelihood Frequency Estimation". IEEE Transactions on Signal Processing. 48(7): 1937-9 1946. (Jul. 2000). Examiner **Date Considered**

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Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

U.S. DEPARTMENT OF COMMERCE ATTY. DOCKET NO. **FORM PTO-1449** SERIAL NO. 10/736,697 (REV. 7-80) PATENT AND TRADEMARK OFFICE 73674-4 **APPLICANT** LIST OF PUBLICATIONS CITED BY APPLICANT Gazor, Saeed (Use several sheets if necessary) **FILING DATE GROUP** December 17, 2003 3632 10 KUMARESAN, R., et al. "RISC: Improved Costas Estimator-Predictor Filter Bank for Decomposing Multi-Component Signals". Seventh SP Workshop on Statistical Signal and Array Processing. Quebec City. 207-210 (Jun. 1994). LU, S., et al. "Nonlinear Modeling and Processing of Speech Based on Sums of AM-FM Formant Models". 11 IEEE Transactions on Signal Processing. 44(4): 773-782 (Apr. 1996). MACLEOD, M. D. "Fast Nearly ML Estimation of the Parameters of Real or Complex Single Tones or Resolved 12 Multiple Tones". IEEE Transactions on Signal Processing. 46(1): 141-148. (Jan. 1998). MUKHOPADHYAY, S., et al. "Parametric Modeling of Non-stationary Signals: A Unified Approach". Signal 13 Processing. 60: 135-152. (1997). 14 NEHORAI, A., et al. "Adaptive Comb Filtering for Harmonic Signal Enhancement". IEEE Transactions on Acoustics, Speech, and Signal Processing. 34(5): 1124-1138. (Oct. 1986). PAI, W.-C., et al. "Statistical AM-FM Models, Extended Kalman Filter Demodulation, Cramér-Rao Bounds, and 15 Speech Analysis". IEEE Transactions on Signal Processing 48(8): 2300-2313. (Aug. 2000). 16 STOICA, P., et al. "Maximum Likelihood Estimation of the Parameters of Multiple Sinusoids from Noisy Measurements". IEEE Transactions on Acoustics, Speech, and Signal Processing. 37(3): 378-392. (Mar. 1989). 17 STREIT, R. L., et al. "Frequency Line Tracking Using Hidden Markov Models". IEEE Transactions on Acoustics, Speech, and Signal Processing. 38(4): 586-598. (Apr. 1990). TURMON, M. J., et al. "Maximum Likelihood Estimation of Complex Sinusoids and Toeplitz Covariances". IEEE 18 Transactions on Signal Processing. 42(5): 1074-1086. (May 1994). WHITE, L. B. "An Iterative Method for Exact Maximum Likelihood Estimation of the Parameters of a Harmonic 19 Series". IEEE. Transactions on Automatic Control. 38(2): 367-370. (Feb. 1993). 20 WIDROW, B., et al. "Adaptive Noise Cancelling: Principles and Applications". Proc. IEEE. 63 (12): 1692-1716 (Dec 1975). YAP, T.B., et al. "Bayesian Segmentation of AM-FM Texture Images". Conference Record of the Thirty-Fifth 21 Asilomar Conference on Signals, Systems and Computers. 1156-1160. (2001). ZHOU, G., et al. "On Polynomial Phase Signals with Time-Varying Amplitudes". IEEE Transactions on Signal 22 Processing. 44(4): 848-861. (Apr. 1996). Date Considered Examiner

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